STATEMENT OF LEGAL AND FACTUAL BASIS

Meadwestvaco Packaging Resource Group
Covington, Virginia
(Covington Pulp and Paper Mill)

Permit No. VA-20328

Permit Date: December 13, 2005 Modification of 5-31-04 Title V permit

Registration No. 20328
State-City-Plant No. 51-580-0003

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Meadwestvaco Packaging Resource Group has a Title V Operating Permit for its pulp and paper mill located on East Riverside Street in Covington, VA.

Currently, the company has applied for a modification of the Title V Operating Permit. At EPA's request, the same Title V public participation procedures were used to process the application as for an initial permit issuance (9 VAC 5-80-270 and 9 VAC 5-80-290). The Department has reviewed the application for a permit modification and has prepared a modified Title V Operating Permit to **supersede** the May 31, 2005 Title V Operating Permit.

FACILITY INFORMATION

Permittee
Meadwestvaco Packaging Resource Group (Meadwestvaco Virginia Corp.)
104 East Riverside Street
Covington, VA 24426

Facility
Meadwestvaco Packaging Resource Group (Meadwestvaco Virginia Corp.)
104 East Riverside Street
Covington, VA 24426

SOURCE DESCRIPTION

SIC Code: 2631/2611

This facility is a large integrated kraft pulp and paperboard mill. Pulp is produced from wood by the kraft pulping process. All pulp produced is bleached with a modern elemental chlorine free (ECF) bleaching process. Prior to bleaching, most of the pulp is processed in an oxygen delignification system. The facility is partially through a multi-year major expansion and modernization project.

PERMITS

The facility has a Title V Operating Permit that was effective May 31, 2004 (issued May 11, 2004) that is the subject of this permit modification. The facility has two other permits, both are NSR permits to construct or modify and operate. They were issued prior to the Title V permit. The NSR permits cover portions but not all of the facility.

The November 3, 2003 NSR permit was amended on September 20, 2005 as a minor permit amendment. Its two changes are included in the current Title V permit modification. This NSR permit focused around adding a second lime kiln. The other NSR permit has no recent changes.

PROPOSED TITLE V PERMIT MODIFICATION

There are four draft changes to the Title V permit as described below.

1. Delete Paper Coating MACT requirements by reference, 40 CFR 63 Subpart JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating. Contrary to the MACT applicability understanding when this Title V permit was created, it is now known that this MACT is not applicable to this facility per the November 19, 2003 EPA interpretation from Michael S. Alushin to the American Forest & Paper Association, due to being on-line coating on paper making machines. This EPA interpretation made the MACT requirements by reference in the permit an error that is now being corrected. These MACT requirements by reference deletions are in Section VII, Conditions A4, A5, B1, C2, D3, and E. The condition numbers are retained with explanations that the requirements to meet MACT JJJJ are being deleted as not applicable. The compliance date, if the MACT were applicable, would be December 5, 2005 for existing equipment. This MACT was deleted as a requirement by reference from the 11-3-03 NSR permit on 9-20-05.

2. Add Industrial Boiler MACT requirements by reference, 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters. This MACT was promulgated September 13, 2004, is applicable to the facility, and therefore needs to be added to the Title V permit. Its compliance date for existing sources is September 13, 2007. These MACT requirements by reference are added in Section III, Conditions A34, B7, C17, and E.

3. Add information for clarification, MACT S: add to list of MACT S applicable equipment, identify additional equipment and MACT reference for monitoring "enclosures and the closed vent gas collection system": Add additional existing equipment to the High Volume Low Concentration list of equipment applicable to 40 CFR 63 Subpart S, MACT S, Pulp Mill MACT I, Phase II, with a compliance date of April 17, 2006. This equipment had not previously been described as applicable to MACT S requirements. The equipment being added is all the Brown Stock Washer Lines not already required to meet this, and all the Post Oxygen Washer Lines. These are being added to the equipment list in Section IV, Conditions A8. Also, "and effective 4/17/06 those associated with the HVLC system" is being added to Section IV, Condition B1c to identify that MACT S monitoring of "enclosures and closed vent gas collection system" applies to the low concentration system in addition to the high concentration system already noted in the condition. Further, "in accordance with 40 CFR 63.450(b)" is being added to Section IV, Condition B1c(1)(a) to identify the reference for the gas collection system MACT monitoring requirement to "ensure each enclosure opening is maintained in the closed position and sealed."

4. One (1.0) percent sulfur fuel oil is equivalent to 0.5 percent sulfur fuel oil for SO2 BACT for Lime Kiln #2 and modified Lime Kiln #1. The 9-20-05 change in Condition #48 of the 11-3-03 NSR permit is being rolled into the Title V permit, Section V Condition A 30. The previous requirement of NSR condition #48 was rolled into the Title V permit, and now the recently changed requirement of the NSR condition is similarly being rolled into the Title V permit to maintain consistency in both permits.

The original NSR permit had a 0.5 percent sulfur limit for #6 fuel oil burned in the new and modified lime kilns as BACT for SO2 emissions. The NSR change approved 1.0 percent sulfur oil as equivalent to 0.5 percent sulfur oil as BACT for SO2 emissions from these two lime kilns. The basis for the change is explained with the 9-20-05 permit amendment in condition #48 of the 11-3-03 NSR permit. In summary, SO2 emissions testing of this equipment by EPA Method 6c in 2005 comparing 1.0 percent and 0.5 percent #6 fuel oil measured similar SO2 emission rates from both fuels, less than one (1) ton/yr potential emission from each fuel if 8760 hrs/yr, compared with hundreds of tons/yr of SO2 emissions if burned at this rate in a boiler. The process is

direct oil firing long horizontal rotary lime kilns fed lime mud from the chemical recovery portion of this kraft pulp mill.

The draft revised Title V permit condition is repeated here for the reader's convenience:

Section V Condition A 30; "**Fuel Specification** - The maximum sulfur content of the oil to be burned in the modified No. 1 Lime Kiln **(REC045)** and the No. 2 Lime Kiln **(REC047)** shall not exceed 1.0 percent by weight per shipment as an approved alternative in this process as equivalent to meeting a fuel oil sulfur content limit of 0.5 percent. Fuel oil with a maximum 1.0 percent sulfur content has been determined through SO2 emission measurements of this process to be equivalent to 0.5 percent sulfur content fuel oil for BACT for SO2 emissions for this process. The permittee shall maintain records, including certifications, of all oil shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years."
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 48 of the 11/3/03 NSR Permit as amended 9/20/05)

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

At EPA's request, the same Title V public participation procedures were used to process the application as for an initial permit issuance (9 VAC 5-80-270 and 9 VAC 5-80-290).

A public notice regarding the draft permit modification was published in the October 27, 2005 edition of the *Virginian Review*. Public comments were accepted for 30 days following publication of the notice, from October 27, 2005 through November 28, 2005. No comments were received. USEPA reviewed this permit with concurrent processing as draft and proposed with a simultaneous starting date. The final day for USEPA comments was December 12, 2005. No comments were received from EPA.

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STATEMENT OF LEGAL AND FACTUAL BASIS

Meadwestvaco Virginia Corp. - Packaging Resources Group
Covington, Virginia
(Covington Pulp and Paper Mill)

Permit No. VA-20328

Permit Date: May 11, 2004

Registration No. 20328
AFS ID No. 51-580-0003

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, MeadWestvaco Corp. has applied for a Title V Operating Permit for its pulp and paper mill located on East Riverside Street in Covington, VA. The Department has reviewed the application and has prepared a Title V Operating Permit.

FACILITY INFORMATION

Permittee
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COMPLIANCE STATUS

DEQ inspects the facility at least once per year. The most recent inspection was conducted on August 20, 2003. That inspection determined that the facility was in compliance with the State Air Pollution Control Board Regulations.

TITLE V MAJOR SOURCE STATUS

The facility is a Title V major emission source of SO_2, NOx, CO, Particulate Matter, PM-10, VOC, and Hazardous Air Pollutants (HAPS).

ATTAINMENT AREA AND PSD STATUS

This source is located in an attainment area for all pollutants. This is a PSD major source for SO_2, NOx, CO, Particulate Matter, PM-10, VOC, Total Reduced Sulfur (TRS), reduced sulfur compounds, and sulfuric acid mist. PSD New Source Review (NSR) permitting has been applicable only to NOx and CO emission increases, and that was only in the 1988 NSR permit. All other construct or modify emissions increases have been less than PSD significant increases, or have netted to less than PSD significant increases due to voluntary enforceable emissions reductions from other equipment at the facility such as adding SO_2 scrubbing to the existing coal boilers and shutting down the lime calciner.

NSR PERMITS

The source has two (2) NSR permits to construct or modify and operate. They cover portions but not all of the facility as follows:

October 12, 1988 NSR permit, as amended through October 31, 2003, to modernize and expand the pulp mill. It included expanding digesting, adding a second recovery furnace, etc., and it was a PSD permit for PSD significant emission increases of NOx and CO. The facility accepted voluntary enforceable emissions reductions to net to less than PSD significant increases for other pollutants.

November 3, 2003 NSR permit, which superseded the Oct. 29, 1999 NSR permit, which in turn superseded all NSR permits other than the 1988 permit. These included the 1994 NSR permit to add the No. 11 gas/oil power boiler, and the Oct. 29, 1995 NSR permit to further modernize and expand the pulp mill beyond the 1988 expansion permit. The Oct. 29, 1995 NSR permit included further expanding digesting, adding a second lime kiln, expanding the existing lime kiln, installing 3 new bleach lines to allow for elemental chlorine free bleaching, etc.

APPLICABLE REGULATIONS included in this PERMIT: STATE, NSPS, MACT:

Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 10 et seq. (9 VAC 5-10-10 et seq.) (many sections)

NSPS 40 CFR 60 Subpart Db, New and Modified Industrial Boilers

NSPS 40 CFR 60 Subpart BB, New and Modified Kraft Pulp Mills

MACT 40 CFR 63 Subpart S, HAPS from Pulp and Paper Industry (Pulp & Paper MACT I)

MACT 40 CFR 63 Subpart MM, HAPS from Chemical Recovery Combustion Sources at Pulp Mills (Pulp & Paper MACT II)

MACT 40 CFR 63 Subpart JJJJ, HAPS from Paper and Other Web Coating

NOx Budget Trading Program (NOx SIP Call) - Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 140 Part I, NOx Budget Trading Program (9 VAC 5-140-10 et seq.) The program applies to all six power boilers. The budget trading part of this program begins May 31, 2004.

FUTURE APPLICABLE REQUIREMENTS

1. NOx Budget Trading Program/ NOx SIP Call - applies to all 6 power boilers, with the emissions portion beginning May 31, 2004. DEQ has incorporated these requirements into this permit.

2. Industrial Boiler MACT (DDDDD) - expected to be promulgated during 2004, will probably apply to this facility, and will need to be added to this permit after it is promulgated.

3. MACT MM, JJJJ and part of MACT S - These have been promulgated, are applicable to this facility as noted above, and are included in this permit. Where these MACTs have future compliance dates, this Title V permit notes the respective permit conditions as effective on those compliance dates. With one exception, the permit conditions detail the one or two MACT options this facility is most likely to use. The one exception not detailed except to specify meeting the MACT, is only the delayed compliance date portion of MACT S because the facility has not decided on which compliance options to use at this time (2003). This portion of MACT S covers a variety of pulp mill minor emissions sources. Compliance with one portion of the MACT S standard is already in effect and the options used are detailed in this permit.

4. NSPS BB - Although NSPS BB already applies to approximately half of the pulp mill/ recovery/ lime kiln operations, NSPS for the No. 1 Lime Kiln is not applicable until its proposed modification occurs, and the proposed second condensate stripper is not applicable until it is constructed.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Major equipment groups in this permit are consistent with the equipment groupings in the various MACT regulations for this facility, and are organized as follows:

(1) the six power boilers, (2) the unbleached pulp mill [except for only the lime kilns and recovery furnaces and their smelt dissolving tanks], (3) the two lime kilns and the two recovery furnaces and their smelt dissolving tanks, (4) pulp bleaching and the chlorine dioxide plant, (5) the five paper machines to produce paperboard from pulp, and (6) miscellaneous, which includes the wood yard, haul roads, the process waste water treatment plant (WTP), landfills, etc.

Greater details of major equipment and processes in the permit order are listed below**:**

Power boilers: The plant has six (6) power boilers. No. 6 and No. 9 boilers burn coal, while No. 7 and No. 8 boilers burn coal and bark/woodwaste. No. 10 boiler burns natural gas, and Nos. 2, 4, and 6 fuel oil. No. 11 boiler burns natural gas and No. 2 fuel oil. The plant's primary fuels are coal and to a lesser extent bark/woodwaste, which are supplemented only as needed with natural gas and fuel oil. Each of these boilers exceeds 250 million Btu/hr capacity. The only power boiler constructed under NSR permits and NSPS is No. 11 (NSPS Db) because it is the only one installed after the NSR permitting and boiler NSPS applicability dates. Boilers Nos. 6 - 10 were constructed well before 1972, and have a few limitations added by subsequent NSR permits to reduce certain emissions for the plant to net certain pollutants out of the need for PSD permitting. The NOx Budget Trading Program applies to all 6 power boilers; the emissions portion becomes effective 5-31-04.

The Unbleached Pulp Mill section of this permit is the large group of equipment making up the unbleached pulp mill, except for the lime kilns and recovery furnaces and their smelt dissolving tanks which are subject to a different MACT MM.

The equipment in this group includes: wood pulping digesting (currently (2003) 18 of proposed 24 digesters)/ blow tank/ accumulator system, turpentine recovery system, pulp deknotting and screening systems, pulp brown stock washer systems, pulp oxygen delignification systems, waste heat evaporator system, multiple effect evaporator systems (MEE), indirect contact black liquor concentrator systems, pulping process non-condensible gas (NCG) system/ waste gas enclosures and closed vent systems, NCG/ waste gas treatment systems which include treatment by combustion in lime kilns or waste gas incinerators, the waste gas incinerator systems, and pulping foul concentrate system including closed collection system and treatment systems.

These treatment systems include foul concentrate steam stripper systems and combustion of the stripped gas in lime kilns or waste gas incinerator systems. The primary pollutants of concern that are emitted from these pulping processes/ systems are VOC HAPS, VOCs, and TRS, which are now extensively controlled primarily by their collection and treatment by combustion. Other equipment in this section includes lime storage bins, slakers/causticizers, green liquor and white liquor clarifier systems, and lime mud systems.

MACT S applies to most of this equipment. It requires most waste gases including non-condensible gases to be collected and treated and most waste gases dissolved in foul condensates to be stripped and treated. The primary treatment used by this mill is combustion, which is accomplished in lime kilns and/or waste gas incinerators. The largest emission sources in this equipment group are already required to comply with this MACT. Various emission sources as specified in this MACT, and therefore in this permit, gives the mill until April 17, 2006 to decide upon and implement control strategies to comply with the MACT standard.

NSPS BB and the 2 NSR expansion permits to construct or modify pre-dated MACT S and apply to most major emission sources in this equipment group, including pulping system digesting and related processes, the kraft pulping non-condensible gas (NCG) system to collect and burn NCG gases, the kraft pulping process foul condensate system including steam stripping and combusting these stripped waste gases, and the D-line brown stock washer system.

The Recovery Section of this permit consists of only the emission sources specified in 40 CFR 63 MACT Subpart MM - Chemical Recovery Combustion Sources at Kraft...Pulp Mills. These emission sources are the 2 Lime Kilns, the 2 Recovery Furnaces and their Smelt Dissolving Tanks.

MACT MM applies to all this named equipment. All of this equipment is considered to be existing equipment for this MACT. The MACT compliance date is March 13, 2004; its requirements are included in this permit as effective on this future compliance date. NSPS BB applies to the No. 2 Recovery Furnace and its Smelt Dissolving Tank, the No. 2 Lime Kiln, and the proposed modified No. 1 Lime Kiln when it is modified (not currently in 2003). The 1988 NSR permit applies to the No. 2 Recovery Furnace and its Smelt Dissolving Tank. The November 2003 NSR permit applies to both Recovery Furnaces and especially both Lime Kilns.

Bleaching: All the unbleached kraft pulp is bleached on-site in a modern Elemental Chlorine Free (ECF) and hypochlorite free bleaching process. The process primarily uses chlorine dioxide ($Cl0_2$) for bleaching. Before bleaching, most of the unbleached kraft pulp goes through the Unbleached Pulp Mill's modern oxygen delignification process to minimize the amount of bleaching required.

The current bleach lines are the A and B "unit" bleach lines and the C bleach line. The proposed A and D bleach lines are permitted but not yet constructed (2003). The chlorine dioxide bleaching agent is made on-site in the chlorine dioxide plant. This plant consists of chlorine dioxide plants 1 and 2 which contain a total of three chlorine dioxide generators.

MACT S applies to all bleach lines, but not the chlorine dioxide plant. This MACT's compliance option used at this facility reinforces the NSR prohibition against using elemental chlorine and hypochlorite in any bleach line. Both NSR permits address chlorine dioxide manufacturing and all bleaching.

Paper machines: The bleached pulp is then made into paperboard on-site on the four (4) active paper machines (Nos. 1, 2, 5, and 8). Temporarily inactive paper machine No. 6 may also be used. The machines convert bleached pulp into paperboard. In this process, coatings are applied to the paperboard to produce certain desired characteristics. The coatings are mostly clay based but may contain certain organic compounds. MACT JJJJ applies to paper and other web coating, and the 11-3-03 NSR permit addresses the No. 2 paper machine. The MACT compliance date is December 5, 2005; its requirements are included in this permit as effective on this future compliance date.

Miscellaneous: This section includes woodyard, process waste treatment plant (WTP), landfills, haul roads, etc. The woodyard receives and stores (a) wood chips and (b) logs which the woodyard debarks and chips. The woodchips are the raw material for the pulping digesters. The bark is power boiler fuel. The process waste water treatment plant treats the mill's process waste water and discharges into the Jackson river. The NSR permits address some of this section.

Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Powerhouse (Fuel Burning Equipment)							
PWR006	PWRA	No. 6 Boiler (coal primary fuel)	550 MMBTU/hr	ESP, SO_2 scrubber, low NO_X burners	PHCD01, PHCD07	PM, SO_2, NO_X	10/12/88, 11/3/03
PWR007	PWRA	No. 7 Boiler (coal/bark/wood p.f)	440 MMBTU/hr	ESP, SO_2 scrubber, flue gas recirculation	PHCD02, PHCD07	PM, SO_2, NO_X	10/12/88, 11/3/03
PWR008	PWRA	No. 8 Boiler (coal/bark/wood p.f)	580 MMBTU/hr	ESP, SO_2 scrubber, flue gas recirculation	PHCD03, PHCD07	PM, SO_2, NO_X	10/12/88, 11/3/03
PWR009	PWRA	No. 9 Boiler (coal p.f.)	807 MMBTU/hr	ESP, SO_2 scrubber, low NO_X burners	PHCD04, PHCD07	PM, SO_2, NO_X	10/12/88, 11/3/03
PWR010	PWRB	No. 10 Boiler (natural gas p.f.)	330 MMBTU/hr				10/12/88
PWR011	PWRC	No. 11 Boiler (natural gas p.f.)	425 MMBTU/hr	Low NOX burners, FGR		NO_X	11/3/03
PWR012		Coal Handling System					
PWR013		Woodwaste Handling System					
Unbleached Pulp Mill (except recovery furnaces, smelt tanks, and lime kilns)							
UPM002		Digester Charging System	3800 ADTP/day				
UPM003		Batch Digesters 1-26 & System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
UPM004		Turpentine System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
UPM005		Knot Handling System	3800 ADTP/day	HVLC****		HAPs	
UPM010		A Line Brownstock Washer System	1200 ODT/day	HVLC****		VOC, TRS, HAPs	
UPM011		A Line High Density Storage					
UPM012		A Line Delignification Blow Tank	1200 ODT/day	NCGS/HVLC***	NCGS	HAPs, VOC	11/3/03
UPM013		A Line Post Oxygen Wash System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM014		A Line Screening System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM020		C Line Brownstock Washer System	1200 ODT/day	HVLC****		HAPs, VOC	
UPM021		C Line High Density Storage					
UPM022		C Line Delignification Blow Tank	1200 ODT/day	NCGS/HVLC***	NCGS	HAPs, VOC	11/3/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Unbleached Pulp Mill (except recovery furnaces, smelt tanks, and lime kilns) continued							
UPM023		C Line Post Oxygen Wash System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM024		C Line Screening System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM030		D Line Brownstock Washer System	1200 ODT/day	HVLC****/ Process control		VOC, TRS, HAPs	10/12/88
UPM031		D Line High Density Storage	1200 ODT/day				
UPM032		D Line Delignification Blow Tank	1200 ODT/day	NCGS/HVLC***		HAPs, VOC	10/12/88, 11/3/03
UPM033		D Line Post Oxygen Wash System	1200 ODT/day	HVLC****		HAPs, VOC	10/12/88, 11/3/03
UPM034		D Line Screening System	1200 ODT/day	HVLC****		HAPs, VOC	10/12/88, 11/3/03
UPM040		Unbleached Stock Storage	3800 ADTP/day				
UPM042		Shower Water System	3800 ADTP/day				
REC004		No. 1 Recovery Salt Cake Mix Tank	2627 TBLS/day				
REC006		Oxidized Black Liquor Storage	2627 TBLS/day				
REC012		No. 2 Recovery Salt Cake Mix Tank	3000 TBLS/day				
REC020		Black Liquor Storage	5627 TBLS/day				
REC021		Light Liquor Storage	5627 TBLS/day				
REC030		Weak Wash Storage	1220 TCaO/day				
REC032		Green Liquor Clarifier System	1220 TCaO/day				11/3/03
REC034		No. 16 Slaker/Causticizers (16 ft)	413 TCaO/day	Condenser/enclosed		PM	10/12/88
REC035		No. 20 Slaker/Causticizers (20 ft)	653 TCaO/day	Scrubber		PM	10/12/88
REC036		White Liquor Clarifier System	1220 TCaO/day				11/3/03
REC037		White Liquor Oxidation	1220 TCaO/day				
REC039		No. 24 Slaker/Causticizer (24 ft)	1220 TCaO/day	Condenser/vented encl		PM	11/3/03
REC040		Lime Mud Storage	1220 TCaO/day				
REC041		Lime Mudwasher System	1220 TCaO/day				11/3/03
REC043		Lime Mudfilter System	1220 TCaO/day				11/3/03
REC044		Lime Mudfilter Vacuum Separators	1220 TCaO/day				11/3/03
REC048		No. 1, 2, & 3 Lime Bins	310 TCaO/hr	Dust collector		PM	11/3/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Unbleached Pulp Mill (except recovery furnaces, smelt tanks, and lime kilns) continued							
REC049		No. 4 & 5 Lime Bins	420 TCaO/hr	Dust collector		PM	11/3/03
REC050		Dregs Washer System	1220 TCaO/day				11/3/03
REC051		Dregs Filter System	1220 TCaO/day				11/3/03
REC052		Grits Washer System	1220 TCaO/day				
REC060		Recovery Accumulator	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	11/3/03
REC061		Waste Heat Evaporator System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC062		No 1, 2, 3 Multiple Effect Evaporators	2627 TBLS/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC063		No. 4 Multiple Effect Evaporator	3000 TBLS/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC064		No. 1 Condensate Stripper	600 gpm	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC065		No. 1 Incinerator	2600 ADTP/day	Scrubber (NCGS/LVHC**)	NCGS	SO_2, VOC, TRS	10/12/88, 11/3/03
REC066		No. 4 Condensate Tank	3800 ADTP/day				
REC067		No. 2 & 3 Incinerators (proposed)	3800 ADTP/day	Scrubber (NCGS/LVHC**)	NCGS	VOC, TRS	11/3/03
REC069		No. 2 Condensate Stripper (proposed)		NCGS/LVHC**	NCGS	VOC, TRS	11/3/03
REC070		LVHC Closed Vent System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS	10/12/88, 11/3/03
REC071		Condensate Collection System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS	10/12/88, 11/3/03
REC072		HVLC Closed Vent System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS	
Recovery Furnaces, Smelt Tanks, and Lime Kilns							
REC001		No. 1 Recovery Furnace	2627 TBLS/day	ESP		PM	10/12/88, 11/3/03
REC002		No. 1 Recovery Smelt Dissolving Tank - Upriver	2627 TBLS/day	Scrubber		PM, TRS	10/12/88
REC003		No. 1 Recovery Smelt Dissolving Tank - Downriver	2627 TBLS/day	Scrubber		PM, TRS	10/12/88
REC005		BLOX Tower - #1 Recovery Furnace	2627 TBLS/day				

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Recovery Furnaces, Smelt Tanks, and Lime Kilns continued							
REC068		Black Liquor Concentrator (RF#1)	2627 TBLS/day	NCGS/LVHC**	NCGS	VOC, TRS	11/3/03
REC010		No. 2 Recovery Furnace	3000 TBLS/day	ESP		PM	10/12/88, 11/3/03
REC011		No. 2 Recovery Smelt Tank	3000 TBLS/day	Scrubber		PM, TRS, SO_2	10/12/88
REC045		No. 1 Lime Kiln (before modification)	347 TCaO/day	Venturi scrubber		PM, TRS, SO_2	10/12/88, 11/3/03
REC045		No. 1 Lime Kiln (after modification)	470 TCaO/day	ESP, SO_2 scrubber		PM, TRS, SO_2	10/12/88, 11/3/03
REC047		No. 2 Lime Kiln	720 TCaO/day	ESP, venturi scrubber		PM, TRS, SO_2	11/3/03
Bleaching							
BPM001		A Unit Bleach Line	1200 ODT/day	HAPS scrubber		HAPS	11/3/03
BPM002		B Unit Bleach Line	1400 ODT/day	HAPS scrubber		HAPS	11/3/03
BPM003		Bleach Room Unbleached Stock Storage	3800 ADT/d				
BPM004		Bleach Room Deckers	1200 ODT/day				
BPM005		Bleached Stock Storage	3800 ADT/d				
BPM006		Brown Water System	3800 ADT/d				
BPM011		A Bleach Line (proposed)	1200 ODT/day	HAPS scrubber		HAPS	11/3/03
BPM012		C Bleach Line	1200 ODT/day	HAPS scrubber		HAPS	11/3/03
BPM013		D Bleach Line (proposed)	1200 ODT/day	HAPS scrubber		HAPS	11/3/03
CLO001		No. 1 ClO2 Plant	30 tons/day				
CLO002		ClO2 Liquor System	80 tons/day				
CLO003		Methanol Tank					
CLO004		No. 2 ClO2 Plant	80 tons/day				11/3/03
Paper Machines							
PM1001		No. 1 Paper Machine	2000 ADTFP/day				
PM1002		No. 1 Paper Machine Stock Storage	2000 ADTFP/day				

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Paper Machines continued							
PM1003		No. 1 Paper Machine Decker	2000 ADTFP/day				
PM2001		No. 2 Paper Machine	2000 ADTFP/day				11/3/03
PM2002		No. 2 Paper Machine Stock Storage	2000 ADTFP/day				
PM2003		No. 2 Paper Machine Decker	2000 ADTFP/day				
PM5001		No. 5 Paper Machine	1000 ADTFP/day				
PM5002		No. 5 Paper Machine Stock Storage	1000 ADTFP/day				
PM5003		No. 5 Paper Machine Decker	1000 ADTFP/day				
PM6001		No. 6 Paper Machine	1000 ADTFP/day				
PM6002		No. 6 Paper Machine Stock Storage	1000 ADTFP/day				
PM6003		No. 6 Paper Machine Decker	1000 ADTFP/day				
PM8001		No. 8 Paper Machine	1000 ADTFP/day				
PM8002		No. 8 Paper Machine Stock Storage	1000 ADTFP/day				
PM8003		No. 8 Paper Machine Decker	1000 ADTFP/day				
PPP002		Purchased Pulp Storage					
Miscellaneous Sources							
WYD003		Slasher	10, 000 ton/day				
WYD004		Debarking Drum	10, 000 ton/day				
WYD005		Chipper	10, 000 ton/day				
WYD006		Chip Screening	10, 000 ton/day				
WTP001		Mix Tanks	35 Mgal/day				
WTP002		Primary Clarifiers	35 Mgal/day				
WTP003		Cooling Tower	35 Mgal/day				
WTP004		Aeration Basin	35 Mgal/day				
WTP007		Sludge Dewatering System	35 Mgal/day				
WTP011		No. 1, 2, 3 & 4 Landfills					
WTP012		No. 5 Landfill (proposed)					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Miscellaneous Sources continued							
WVC002		General Mill Roads					11/3/03
WVC003		Landfill Haul Roads					11/3/03
WVC004		Gasoline Storage					
WVC005		Air Conditioning System					
WVC006		Woodyard Haul Roads					11/3/03

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
**NCGS/LVHC control device denotes the non-condensable gas system routing low volume, high concentration gasses to combustion control
***NCGS/HVLC control device denotes the non-condensable gas system routing high volume, low concentration gasses to combustion control
****HVLC denotes that the equipment is subject to a future applicable requirement for control of high volume, low concentration gasses

Industry abbreviations:

ADTP/d = Air Dried Tons of Pulp per day
ODTP/d = Oven Dried Tons of Pulp per day
TBLS/d = Tons of Black Liquor Solids per day
TCaOd = Tons of Lime per day
ODT/d = Oven Dried Tons (of paper) per day
ADTFP/d = Air Dried Tons of Finished Paper per day

EMISSIONS INVENTORY

Facility actual emissions for calendar year 2002 are summarized below:

Total NOx Emissions:	4,189.95 tons
Total SO2 Emissions:	9,059.87 tons
Total CO Emissions:	3,035.54 tons
Total TSP Emissions:	1,163.36 tons
Total PM-10 Emissions:	745.97 tons
Total VOC Emissions:	1,466.41 tons
Total TRS Emissions:	121.89 tons
Total Sulfuric Acid:	118.86 tons
Significant HAP Emissions*	
Hydrochloric Acid:	366.50 tons
Hydrofluoric Acid:	8.17 tons
Chlorine:	0.18 tons
Acetaldehyde:	42.40 tons
Formaldehyde:	11.89 tons
Trichloroethylene:	3.10 tons
Perchloroethylene:	3.10 tons
Methylene Chloride:	1.16 tons

* Precise estimates of some VOC HAPS are not possible for HAPS such as methanol, cresol, etc., as these vary with the process feedstock. Methanol is the largest of these variable HAPS at 70-85% of the VOC emission rate.

EMISSION UNIT APPLICABLE REQUIREMENTS

New Source Review Permit Requirements

The majority of conditions contained in the federal operating permit are requirements necessary to comply with the conditions of the New Source Review permits for the facility issued October 12, 1988 (as amended in 1990, 1995, and 2003) and November 3, 2003 (superseding permits written in 1994, 1995, and 1999). Copies of the permits are attached as Appendices B and D. The conditions of the federal operating permit and the corresponding conditions of the NSR permit are displayed in the table below. Conditions from the 2003 permit are designated P1, e.g. Condition 3 of the 2003 permit would be shown as P1-3. Conditions from the 1988 permit are designated P2.

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
III-A-3	P1-14	Low NOx burners for netting – Boiler#6	9 VAC 5-80-1700
III-A-4	P1-15	FGR for netting – Boilers#7&8	9 VAC 5-80-1700
III-A-5	P1-16	Low NOx burners for netting – Boiler#9	9 VAC 5-80-1700
III-A-6	P2-I-27	SO_2 scrubbers for PSD – Boilers#6-9	9 VAC 5-80-1700
III-A-8	P1-69	Boiler#6 NOx limit for netting	9 VAC 5-80-1700
III-A-9	P1-70	Boiler#9 NOx limit for netting	9 VAC 5-80-1700
III-A-10	P1-56	Emission limits for netting – Boilers#6-9	9 VAC 5-80-1700
III-A-15	P2-I-7	Fuel throughput limit – Boiler #10	9 VAC 5-80-1100
III-A-16	P2-I-32	Fuel sulfur content – Boiler#10	9 VAC 5-80-1100, 9 VAC 5-80-1700
III-A-17	P2-I-11	Emission limits for netting – Boiler#10	9 VAC 5-80-1700
III-A-21	P1-21	PCDs as BACT – Boiler#11	9 VAC 5-50-260, 9 VAC 5-80-1700
III-A-22	P1-42	Approved fuels – Boiler#11	9 VAC 5-80-1100
III-A-23	P1-43	Fuel consumption limit – Boiler#11	9 VAC 5-80-1100
III-A-24	P1-44	Fuel consumption limit – Boiler#11	9 VAC 5-80-1100
III-A-25	P1-45	Fuel consumption limit – Boiler#11	9 VAC 5-80-1100
III-A-26	P1-46	Fuel specification – Boiler#11	9 VAC 5-80-1100, 9 VAC 5-50-410
III-A-27	P1-50	Fuel certification (No 2 oil) – Boiler#11	9 VAC 5-170-160
III-A-28	P1-71	Emission limits as BACT – Boiler#11	9 VAC 5-50-260, 9 VAC 5-80-1700
III-A-29	P1-72	Emission limits as BACT – Boiler#11	9 VAC 5-50-260, 9 VAC 5-170-160
III-A-30	P1-78	Visible emissions – Boiler#11	9 VAC 5-50-260, 9 VAC 5-50-410
III-A-31	P1-81	Requirement by reference – NSPS Db	9 VAC 5-50-410
III-B-1	P1-25	CEMS for NOx & O_2/CO – Boiler#11	9 VAC 5-50-40, 9 VAC 5-50-410
III-B-2	P2-I-43	CEMS-SO_2 – Boilers#6-9	9 VAC 5-80-1700
III-C-3	P1-105a	Records of fuel use – Boiler #11	9 VAC 5-50-50
III-C-4	P1-105b	Records of oil sulfur content	9 VAC 5-50-50
III-C-5	P1-105c	Fuel supplier certifications	9 VAC 5-50-50
III-C-6	P1-105j	Continuous monitoring system records	9 VAC 5-50-50
III-C-15	P1-105k	Maintenance records	9 VAC 5-50-50
III-D-1	P1-28, P2-II-4	Facility design to allow for emissions Testing	9 VAC 5-50-30
III-D-2	P1-95	Continuing NOx stack test – Boilers 6&9	9 VAC 5-50-30
III-D-4	P1-97	Continuing stack tests – Boiler #11	9 VAC 5-50-30
III-D-5	P1-102	CEMS/COMS Quality Control Program	9 VAC 5-50-40
IV-A-1	P1-83	Requirement by reference – MACT S	9 VAC 5-60-100
IV-A-2	P1-82	Requirement by reference –NSPS BB	9 VAC 5-50-410
IV-A-3	P2-I-22-26, P2-I-28, P1-11, P1-53	LVHC System requirements (NSR conditions generally cite specific equipment with emission controls replaced with the system)	9 VAC 5-60-100, 9 VAC 5-40-1690, 9 VAC 5-50-260

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
IV-A-4	P1-11&12, P1-54, P2-I-26	Condensate collection system requirements (NSR conditions reference specific equipment associated with the system)	9 VAC 5-60-100, 9 VAC 5-80-1100, 9 VAC 5-50-260
IV-A-6	P1-5	Equipment shutdown – Slaker#8	9 VAC 5-80-1100, 9 VAC 5-80-1700
IV-A-7	P1-7	Equipment shutdown – Lime Calciner	9 VAC 5-80-1100, 9 VAC 5-80-1700
IV-A-8	P2-I-22-24, P2-I-28, P1-11	TRS control system requirements (NSR conditions reference specific equipment associated with the system)	9 VAC 5-50-260, 9 VAC 5-50-410
IV-A-9	P1-12	Foul condensate system controls	9 VAC 5-50-260, 9 VAC 5-80-1100
IV-A-10	P1-54	Emission limits as BACT – Mill condensate systems	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-11	P1-55	Emission limits as BACT – various recovery section equipment	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-12	P2-I-4	Digester throughput limit	9 VAC 5-80-1180
IV-A-13	P1-37	Production limit – new digesters (19-26)	9 VAC 5-80-1180
IV-A-14	P1-29	Production limit - digesters	9 VAC 5-80-1180
IV-A-15	P1-38	Throughput limit – Waste Heat Evaporator	9 VAC 5-80-1180
IV-A-16	P1-34	Throughput limits – A, C & D Line Oxygen Delignification Systems	9 VAC 5-80-1180
IV-A-17	P1-53	Emission limits as BACT – A, C & D Line Oxygen Delignification Systems	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-18	P1-35	Throughput limits – recovery section	9 VAC 5-80-1180
IV-A-19	P1-35	Throughput limits – causticizer system	9 VAC 5-80-1180
IV-A-20	P2-I-44	PCD for netting – Slaker#16	9 VAC 5-80-1700
IV-A-22	P2-I-15	Emission limits for netting – Slaker#20	9 VAC 5-80-1700
IV-A-23	P1-20	PCDs as BACT – Slaker#24	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-24	P1-35	Throughput limits – Slaker #24	9 VAC 5-80-1180
IV-A-25	P1-59	Emission limits as BACT – Slaker#24	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-27	P1-19	Fabric filter as BACT – Lime Bins	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-28	P1-31	Throughput limit – Lime Bins 1, 2 & 3	9 VAC 5-80-1180
IV-A-29	P1-67	Emission limits as BACT– Lime Bins 1,2,3	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-30	P1-32	Throughput limit – Lime Bins 4 & 5	9 VAC 5-80-1180
IV-A-31	P1-68	Emission limits as BACT– Lime Bins 4&5	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-32	P1-75	Visible emissions – Lime Bins	9 VAC 5-50-260, 9 VAC 5-80-1100
IV-A-33	P1-49	Approved fuels – Waste Gas Incinerators	9 VAC 5-80-1100
IV-A-35	P1-6	Equipment replacement/shutdown – WGI#1	9 VAC 5-80-1100, 9 VAC 5-80-1700
IV-A-36	P1-73	Emission limits as BACT – WG Incin#1	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-37	P1-74	Emission limits as BACT– WG Incin#2&3	9 VAC 5-50-260, 9 VAC 5-80-1700
IV-A-38	P1-79	Visible emissions – WG Incinerators	9 VAC 5-50-260, 9 VAC 5-80-1100
IV-B-1	P1-11	Non-condensable gas system controls and monitoring	9 VAC 5-50-260, 9 VAC 5-50-410
IV-B-2	P1-19	Fabric filter monitor – Lime Bins	9 VAC 5-50-260
IV-C-1	P-105d	Throughput record – digesters 1-18	9 VAC 5-50-50
IV-C-2	P1-105d	Throughput record – digesters 19-26	9 VAC 5-50-50
IV-C-3	P1-105d	Throughput record – WH Evaporator	9 VAC 5-50-50
IV-C-4	P1-105e	Throughput record – O_2 Delignification	9 VAC 5-50-50
IV-C-5	P1-105f	Throughput record – recovery equipment	9 VAC 5-50-50
IV-C-6	P1-105f	Throughput record – causticizers	9 VAC 5-50-50
IV-C-7	P1-105f	Throughput record – Slaker #24	9 VAC 5-50-50
IV-C-9	P1-105h	Throughput & VOC content record – condensate systems	9 VAC 5-50-50
IV-C-22	P1-105j	Continuous monitoring system records	9 VAC 5-50-50

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
IV-C-7	P1-105f	Throughput record – Slaker #24	9 VAC 5-50-50
IV-C-9	P1-105h	Throughput & VOC content record – condensate systems	9 VAC 5-50-50
IV-C-22	P1-105j	Continuous monitoring system records	9 VAC 5-50-50
IV-C-23	P1-105k	Maintenance records	9 VAC 5-50-50
IV-D-1	P1-28, P2-II-4	Facility design to allow for emissions Testing	9 VAC 5-50-30
IV-D-2	P1-88	Initial performance test – WG Incin #2 & 3	9 VAC 5-50-20, 9 VAC 5-80-1200
IV-D-3	P1-87	Stack tests –WG Incinerator #1	9 VAC 5-50-30
IV-D-4	P1-98	Continuing stack tests –WG Incinerators	9 VAC 5-50-30
IV-D-5	P1-94	Continuing PM stack tests – Lime Bins & Slakers	9 VAC 5-50-30
IV-D-6	P1-90&101	Continuing VEEs – various units	9 VAC 5-50-30
V-A-1	P1-84	Requirement by reference – MACT MM	9 VAC 5-60-100
V-A-2	P1-82	Requirement by reference –NSPS BB	9 VAC 5-50-410
V-A-4	P2-I-30&31	Fuel sulfur content – RF#1 & RF#2	9 VAC 5-50-260, 9 VAC 5-80-1700
V-A-6	P1-13	CO emission controls – RF#1	9 VAC 5-80-1700
V-A-7	P2-I-6	Fuel throughput limit – RF#1	9 VAC 5-80-1100
V-A-8	P2-I-12, P1-65	Emission limits for netting – RF#1	9 VAC 5-80-1700
V-A-9	P1-64	Incorporated consent order condition*	9 VAC-5-40-1690
V-A-11	P1-39	Throughput limit – RF#1 B L Concentrator	9 VAC 5-80-1180
V-A-13	P2-I-13	Emission limits for netting – RF1SDT	9 VAC 5-80-1700
V-A-17	P2-I-20	Control devices as BACT – RF#2	9 VAC 5-50-260
V-A-18	P2-I-20	Control devices as BACT – RF#2	9 VAC 5-50-260
V-A-19	P2-I-5	Fuel throughput limit – RF#2	9 VAC 5-80-1100
V-A-20	P2-I-5	Fuel throughput limit – RF#2	9 VAC 5-80-1100
V-A-21	P2-I-8, P1-66	Emission limits as BACT – RF#2	9 VAC 5-50-260, 9 VAC-50-410
V-A-22	P2-I-33	Additional SO2 limit – RF#2	9 VAC 5-30-30
V-A-23	P2-I-8	Emission limits as BACT – RF#2	9 VAC 5-50-260, 9 VAC-50-410
V-A-24	P2-I-18	Visible emissions – RF#2	9 VAC 5-40-1660, 9 VAC 5-50-410
V-A-25	P2-I-21	Control devices as BACT – RF#2SDT	9 VAC 5-50-260
V-A-26	P2-I-9	Emission limits as BACT – RF2SDT	9 VAC 5-50-260, 9 VAC-50-410
V-A-27	P2-I-9	Emission limits as BACT – RF2SDT	9 VAC 5-50-260, 9 VAC-50-410
V-A-28	P2-I-19	Visible emissions – RF#2SDT	9 VAC 5-40-1660, 9 VAC 5-50-80
V-A-29	P1-47	Approved fuels – LK#1 & LK#2	9 VAC 5-80-1100
V-A-30	P1-48	Fuel specification – LK#1 & LK#2	9 VAC 5-80-1100, 9 VAC 5-50-260
V-A-31	P1-50	Fuel certification (No 2 oil)–LK#1 & LK#2	9 VAC 5-170-160
V-A-32	P1-51	Fuel certification (No 6 oil)–LK#1&LK#2	9 VAC 5-170-160
V-A-34	P1-9	ESP as BACT – LK#1 (as modified)	9 VAC 5-50-260, 9 VAC 5-80-1700
V-A-35	P1-40	Throughput limit – LK#1 (modified)	9 VAC 5-80-1180
V-A-36	P2-I-14	Emission limits for netting – LK#1	9 VAC 5-80-1700, 9 VAC-40-1660
V-A-37	P1-57	Emission limits as BACT–LK#1(modified)	9 VAC 5-50-260, 9 VAC 5-80-1700
V-A-38	P1-76	Visible emissions – LK#1	9 VAC 5-40-1710, 9 VAC 5-50-80
V-A-40	P2-I-45	Minimum stack height limit	9 VAC 5-30-30, 9 VAC 5-80-1100
V-A-41	P1-10	ESP as BACT – LK#2	9 VAC 5-50-260
V-A-42	P1-41	Throughput limit – LK#2	9 VAC 5-80-1180
V-A-43	P1-58	Emission limits as BACT – LK#2	9 VAC 5-50-260, 9 VAC 5-80-1700
V-A-44	P1-77	Visible emissions – LK#2	9 VAC 5-40-1710, 9 VAC 5-50-80
V-B-1	P1-23&24, P2-I-39	CEMS for TRS, O_2 – LK#1 & LK#2	9 VAC 5-40-1660
V-B-2	P1-23&24, P2-I-39	CEMS for TRS, O_2 – LK#1 & LK#2	9 VAC 5-40-1660, 9 VAC 5-50-410

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
V-B-4	P2-I-39	Continuous opacity monitor - RF#2	9 VAC 5-50-410
V-B-5	P2-I-39	Continuous SO_2 emission monitor - RF#2	9 VAC 5-170-160
V-B-9	P2-I-40	PSD monitoring – RF#2SDT	9 VAC 5-50-410
V-C-7	P1-105c	Fuel supplier certifications	9 VAC 5-50-50
V-C-22	P1-105j	Continuous monitoring system records	9 VAC 5-50-50
V-C-23	P1-105k	Maintenance records	9 VAC 5-50-50
V-D-1	P2-II-4, P1-28	Facility design to allow for emissions Testing	9 VAC 5-50-30
V-D-2	P1-99	Continuing CO stack test – RF#1	9 VAC 5-50-30
V-D-4	P1-100	Continuing stack tests – RF#2	9 VAC 5-50-30
V-D-7	P1-86	Initial performance test – LK#1 (modified)	9 VAC 5-50-20, 9 VAC 5-80-1200
V-D-8	P1-96	Continuing stack tests – LK#1 & LK#2	9 VAC 5-50-30
VI-A-2	P1-8	Elemental chlorine free bleaching	9 VAC 5-50-260, 9 VAC 5-60-100
VI-A-3	P1-61	Bleach line CO limit for netting	9 VAC 5-50-260, 9 VAC 5-80-1700
VI-A-5	P1-36	Throughput limits – C Bleach Line	9 VAC 5-80-1180
VI-A-6	P1-60	Emission limits as BACT – C Bleach Line	9 VAC 5-50-260, 9 VAC 5-80-1700
VI-A-7	P1-36	Throughput limits – A Bleach Line	9 VAC 5-80-1180
VI-A-8	P1-60	Emission limits as BACT – A Bleach Line	9 VAC 5-50-260, 9 VAC 5-80-1700
VI-A-9	P1-36	Throughput limits –D Bleach Line	9 VAC 5-80-1180
VI-A-10	P1-60	Emission limits as BACT – D Bleach Line	9 VAC 5-50-260, 9 VAC 5-80-1700
VI-A-11	P1-30	Production limit – ClO_2 Plant#2	9 VAC 5-80-1180
VI-C-7	P1-105i	Record of annual ClO_2 production	
VI-D-1	P2-II-4, P1-28	Facility design to allow for emissions Testing	9 VAC 5-50-30
VII-A-1	P1-33	Production limit – Paper Machine #2	9 VAC 5-80-1180
VII-A-2	P1-52	Emission limits as BACT – #2 P- Machine	9 VAC 5-50-260, 9 VAC 5-80-1700
VII-A-3	P1-80	Visible emissions – #2 Paper Machine	9 VAC 5-50-80
VII-A-4	P1-85	Requirement by reference – MACT JJJJ	9 VAC 5-60-100
VII-D-1	P2-II-4, P1-28	Facility design to allow for emissions Testing	9 VAC 5-50-30
VII-D-2	P1-93	Continuing VOC stack test – various units	9 VAC 5-50-30
VIII-A-1	P1-17	Road paving for PM netting	9 VAC 5-50-260, 9 VAC 5-80-1700
VIII-A-2	P1-62	Paved road PM limit for netting	9 VAC 5-50-260, 9 VAC 5-80-1700
VIII-A-3	P1-18	Road paving for PM netting	9 VAC 5-50-260, 9 VAC 5-80-1700
VIII-A-4	P1-63	Paved road PM limit for netting	9 VAC 5-50-260, 9 VAC 5-80-1700
IX-A-1	P1-3	PSD netting compliance	9 VAC 5-80-1700, 9 VAC 5-170-160
IX-A-2	P1-4	Revision of BACT deadline	9 VAC 5-50-260, 9 VAC 5-170-160
IX-A-4	P1-111	Violation of Ambient Air Standard	9 VAC 5-20-180
IX-A-5	P1-112	Maintenance & operation practice	9 VAC 5-50-20
IX-A-6	P1-108	Steady and timely construction schedule	9 VAC 5-20-1210
IX-B-1	P2-I-41	Ambient SO_2 monitor	9 VAC 5-80-1700, 9 VAC 5-170-160
IX-B-2	P1-26	CEMS installed before initial performance tests	9 VAC 5-50-40
IX-B-3	P1-27	COMS may replace Method 9 VEE	9 VAC 5-50-40
IX-B-4	P1-102	CEMS/COMS Quality Control Program	9 VAC 5-50-40
IX-C-2	P1-105j	Continuous monitoring system records	9 VAC 5-50-50
IX-C-3	P1-105g	Federally required records	9 VAC 5-50-50
IX-C-4	P1-105k	Maintenance records	9 VAC 5-50-50
IX-D-1	P1-28, P2-II-4	Facility design to allow for emissions Testing	9 VAC 5-50-30
IX-D-2	P1-91	COMS as alternative to VEE	9 VAC 5-50-20
IX-D-3	P1-92	CEMS/COMS performance evaluation	9 VAC 5-50-40

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
IX-E-2	P1-103	Notifications – construction milestones	9 VAC 5-170-160
IX-E-3	P1-104	Notification of control equipment maintenance	9 VAC 5-20-180
IX-E-4	P1-106	CMS/COMS reports	9 VAC 5-50-50
IX-E-5	P1-107	Other reports	9 VAC 5-170-160

* Condition 64 of the Nov. 3, 2003 NSR permit, rolled over into this Title V permit, incorporates and replaces an earlier consent order that needs to be addressed here. Virginia DEQ air emission regulations for recovery furnaces differ between cross recovery, allowing 25 ppm TRS, and "new design" furnaces allowing only 5 ppm TRS emissions. The No. 1 Recovery Furnace was originally designated a cross recovery unit. Then its designation was changed several years ago to a new design furnace due to ceasing the semi-chemical portion of pulp digesting operations. The facility installed technology at considerable cost to reduce furnace emissions. TRS emissions now typically meet the 5 ppm standard at least 90% of the time. However, due to the original direct contact evaporator design of the furnace, it does not meet the 5 ppm standard under every operating condition. In accordance with the resulting agreement with DEQ, the furnace is required by this permit to meet the tighter new design 5 ppm TRS standard except for no more than 30 days per year.

Federal Regulation Related Requirements

The permit includes conditions which supply greater detail and specificity regarding the requirements of federal regulations and the options chosen by the facility for compliance when several compliance options are available. Several specific conditions are included in the federal operating permit relating to federal requirements. Conditions related to federal requirements that are identical to, or less restrictive than, a condition from an NSR permit (such as NSPS Subpart Db for No. 11 Boiler) are not included below, as these were addressed in the previous section.

NSPS Subpart BB: is addressed in greater detail with additional necessary requirements in Conditions IV-A-2, IV-A-8, IV-B-1, V-A-2, V-A-39, V-B-2, V-B-3, V-C-10, V-C-12, and IX-E-1.

MACT Subpart S: is addressed in greater detail with additional necessary requirements in Conditions IV-A-1, IV-A-3, IV-A-4, IV-A-5, and VI-A-1, VI-A-4, VI-A-6, VI-A-8, VI-A-10, VI-B-1, VI-B-2, VI-C-1, VI-C-2, VI-C-3, VI-C-4, VI-D-2, VI-D-3, VI-D-4, and IX-A-3.

MACT Subpart MM: is addressed in greater detail with additional necessary requirements in Conditions V-A-1, V-A-10, V-A-14, V-A-36, V-A-37, V-A-43, V-A-45, V-A-46, V-A-47, V-A-48, V-B-6, V-B-7, V-B-10, V-C-11, IX-A-3, and IX-E-1.

MACT Subpart JJJJ: is addressed in greater detail with additional necessary requirements in Conditions VII-A-4, VII-A-5, VII-B-1, VII-C-2, VII-D-3, and IX-A-3.

Grandfathered Equipment Related Requirements

Many pieces of equipment at this facility were installed prior to the Clean Air Act with no subsequent modifications, and are therefore not covered by a New Source Review permit. Most of this "grandfathered" equipment has requirements under the existing source rule of Virginia. This equipment and the associated operating permit conditions based on existing source rules are listed below. These conditions include some that are for the purpose of clarifying which existing source rules apply, monitoring requirements to verify that required control equipment is operating properly, and record keeping necessary to document control equipment operation or emission limit compliance.

Boilers 6-9: Conditions III-A-1, III-A-2, III-A-7, III-A-12, III-A-13, III-B-3, III-B-4, III-C-1, III-C-11, III-C-12, III-D-3

Boiler 10: Conditions III-A-14, III-A-19, III-A-20, III-C-2

No. 20 Slaker: IV-A-21, IV-A-26, IV-B-3, IV-C-8

No. 1 Recovery Furnace: Conditions V-A-3, V-A-5, V-B-8, V-C-1, V-C-2, V-C-14, V-D-3

No. 1 Recovery Smelt Dissolving Tanks: Conditions V-A-12, V-A-15, V-A-16, V-C-13

No. 1 Lime Kiln: Conditions V-A-33, V-C-6, V-C-8, V-D-6

Practical Enforceability Related Requirements

For Title V purposes certain monitoring and/or record keeping requirements were added to make the limitations enforceable as a practical matter. These additional conditions are noted below with the corresponding equipment:

Waste Gas Incinerators: Conditions IV-A-34, IV-B-4, IV-C-11, IV-C-12

Lime Bins: Condition IV-C-10

Condensate System: Condition IV-C-13

Plant production limits: Condition IV-C-20

No. 2 Recovery Furnace: Conditions V-C-3, V-C-4, V-C-5, V-C-14, V-D-5

No. 2 Lime Kiln: Conditions V-C-6, V-C-9

Bleach Lines: Conditions VI-C-5, VI-C-9

No. 2 Paper Machine: Condition VII-C-1

Paved Roads: Conditions VII-B-1, VII-C-1, VII-C-2

Emission Inventory Related Requirements

The permit content requirements of the regulations for federal operating permits, 9 VAC 5-80-110, state that the permit should include conditions necessary to determine the annual emissions of all pollutants from all emission units which are not insignificant. This coincides with the underlying philosophy of the Title V legislation which had as one of its purposes to achieve a more detailed picture of emissions from major source facilities. The following conditions are included for purposes of creating a more precise emission profile for the facility: Conditions III-C-7, III-C-8, III-C-9, III-C-10, III-C-13, III-C-14, IV-C-14, IV-C-15, IV-C-16, IV-C-17, V-C-15, V-C-16, V-C-17, V-C-18, V-C-19, VI-C-6, VC-8, VI-C-10, IX-C-1.

Periodic Monitoring

The permit content requirements of the regulations for federal operating permits, 9 VAC 5-80-110, state that the permit should include conditions for periodic monitoring sufficient to assure that the facility is in compliance with the limits of the permit. The monitoring and record keeping requirements are deemed sufficient to assure compliance with the emission limits of the permit. Continuous opacity monitoring systems and associated record keeping will verify the opacity compliance of those sources. Little or no opacity is expected to be observed under normal operation of the remaining equipment, except for a few scrubber controlled processes with parametric monitoring of the scrubber operation. Under these conditions, a weekly or monthly modified Method 22 evaluation with requirement for Method 9 evaluation if opacity is observed is deemed sufficient to satisfy the periodic monitoring requirement.

Condition III-B-5 requires a Method 22-type evaluation of the No. 10 Boiler and the No. 11 Boiler and, if opacity is observed, documentation of corrective action or a Method 9 evaluation to show the opacity is within permit limits. Condition III-C-16 requires that records of the periodic monitoring results be maintained.

Conditions IV-B-5 and IV-B-6 require a Method 22-type evaluation of the waste gas incinerators, slakers and lime bins and, if opacity is observed, documentation of corrective action or a Method 9 evaluation to show the opacity is within permit limits. Condition IV-C-18 requires that records of the periodic monitoring results be maintained.

Condition IV-B-7 requires periodic enclosure monitoring of the No. 16 Slaker and the No. 24 Slaker. Condition IV-C-19 requires that records of the periodic monitoring results be maintained.

Condition V-B-11 requires a Method 22-type evaluation of the smelt dissolving tanks and the No. 1 Lime Kiln (prior to modification) and, if opacity is observed, documentation of corrective action or a Method 9 evaluation to show the opacity is within permit limits. Condition V-C-20 requires that records of the periodic monitoring results be maintained.

Condition IX-B-5 requires a Method 22-type evaluation of any additional sources of opacity not specifically cited in the permit, should VDEQ determine that the source is problematic at a later date.

Proper Equipment Operation

It is the practice of the Virginia Department of Environmental Quality to require in emission permits conditions that the emission sources, such as fuel burning equipment, be operated in a proper manner. These conditions fall into two categories. The first category is a general condition requiring proper operation and maintenance of equipment which applies under 9 VAC 5-170-160 for equipment in a NSR permit or existing equipment ancillary to the operation of the permitted equipment. The second category is specifications that equipment designed to operate under specific parameters be operated only under those parameters. These conditions are specifically addressed under 9 VAC 5-80-1100 for equipment in a construction permit but for existing equipment in an operating permit that is not subject to a construction permit, 9 VAC 5-170-160 is the requirement generally deemed to be applicable. These conditions are being included in the Title V permit to further justify that record keeping and emission estimates based on fuel usage/throughput measurement will be sufficient to assure compliance with emission limits for combustion products. The basis of the combustion products emission limits for Boiler No. 11 in the NSR permit was the use of emission factors for natural gas and No. 2 fuel oil at the maximum throughput limit, assuming properly operating equipment. The facility plans to use AP-42 emission estimates for the No. 10 Boiler, which has no permitted limits. As such, periodic stack testing of these boilers, beyond NO_X testing for the No. 11 Boiler, seems unduly burdensome and these conditions are intended to demonstrate that the monthly emissions estimates are adequate to satisfy periodic monitoring requirements for this operating permit.

Condition III-A-32 is a general condition for proper operation of the boilers and associated air pollution equipment.

Condition III-B-6 is a requirement to maintain records and procedures supporting compliance with Condition III-A-32.

Taken together with the fuel usage conditions, these conditions define a scenario in which the proper operation of the No. 10 Boiler and No. 11 Boiler are physically incapable of violating the particulate matter and sulfur dioxide standards for fuel burning equipment, 9 VAC 5-40-900 and 9 VAC 5-40-930. Using these conditions allows the permit to use emission estimates rather than expensive stack tests for compliance assurance as discussed above.

Standard Testing Methods

It is the practice of the agency to reference the appropriate USEPA test methods for testing done in addition to monitoring explicitly specified in federal operating permits. Conditions III-D-6, IV-D-7, V-D-10, VI-D-5, VII-D-4, VIII-D-1, and IX-D-4 summarize the appropriate test methods.

Additional Record Keeping

Four conditions relating to record keeping are included for Title V purposes that were not explicitly required by the NSR permits. Conditions IV-C-21, V-C-21, and IX-C-5 require copies of stack tests, performance evaluations, and visible emission evaluations used to demonstrate compliance to be kept for five years. Condition IX-C-6 requires copies to be available for inspection of the operating procedures required in Condition IX-A-5.

Scenario Dependent Limits

Conditions III-A-11 and III-A-18 are included because under different operating and time-averaging scenarios, state or federal regulatory limitations on sulfur dioxide emissions differ. These conditions are intended to insure that the more stringent regulation is observed.

Streamlined Requirements

Streamlining 1: **Obsolete conditions**: The conditions in the NSR permits are streamlined out which deal with new equipment installation time frames and startup initial notifications, initial visible emissions evaluations, and initial stack tests, where these conditions are obsolete due to having been completed.

Streamlining 2: The **startup, shut down, and malfunction opacity exclusion** listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources (pre-1972 sources such as power boilers Nos. 6-10) at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

Streamlining 3: **Visible Emissions Limit**: The 9 VAC 5-50-80 regulation limiting visible emissions to 20% opacity except for 30% during one six-minute period per hour is streamlined out for certain emission units by more restrictive limits as follows:

a. Power boiler No. 11: Due to NSR permit 10% opacity except for 20% opacity during one six-minute period per hour, due to BACT. This NSR limit also streamlines out the less restrictive 40 CFR 60 NSPS Subpart Db 20% - 27% limit for this boiler.

b. All Lime Bins: Due to NSR permit 5% opacity except for 10% opacity during one six-minute period per hour, due to BACT.

c. Waste Gas Incinerators: Due to NSR permit 10% opacity except for 20% opacity during one six-minute period per hour, due to BACT.

d. Smelt Dissolving Tank on No. 2 recovery furnace: Due to NSR permit 10% opacity except for 30% opacity during one six-minute period per hour, due to BACT.

Streamlining 4: No. 1 and No. 2 **Lime Kilns**, **TRS** limits: For the No. 1 Lime Kiln after its proposed modification, and the No. 2 Lime Kiln, the 9 VAC 5-40-1660 regulation limit of 20 ppm TRS, corrected to 10% oxygen, is streamlined out by the more restrictive 40 CFR 60 NSPS Subpart BB limit of 8 ppm TRS, corrected to 10% oxygen, due to NSPS BB applicability.

Streamlining 5: **Smelt Dissolving Tank** on No. 2 recovery furnace, **TRS** limit: The 9 VAC 5-40-1660 regulation and the 40 CFR 60 NSPS Subpart BB regulation TRS limit of 0.033 lb/ton BLS is streamlined out by the more restrictive NSR permit TRS limit of 0.0168 lb/ton BLS, due to BACT.

Streamlining 6: No. 1 and No. 2 **Lime Kilns**, **PM** limits: For No. 1 Lime Kiln after the proposed modification and for No. 2 Lime Kiln, the 9 VAC 5-40-1660 regulation PM limit of 1.00 lb/ADTP and the 40 CFR 63 MACT Subpart MM limit of 0.064 grain/dscf corrected to 10% oxygen are streamlined out by the more restrictive NSR permit limit of 0.020 grain/dscf corrected to 10% oxygen, due to BACT. Before modification of No. 1 Lime Kiln, its 9 VAC 5-40-1660 regulation PM limit of 1.00 lb/ADTP is streamlined out by the more restrictive 40 CFR 63 MACT Subpart MM limit of 0.064 grain/dscf corrected to 10% oxygen, due to MACT MM applicability.

Streamlining 7: No. 1 and No. 2 **Recovery Furnaces**, **PM** limits: For No. 1 and No. 2 Recovery Furnaces, the 9 VAC 5-40-1660 regulation PM limit of 3.00 lb/ADTP is streamlined out by the more restrictive 40 CFR 63 MACT Subpart MM PM limit of 0.044 grain/dscf corrected to 8% oxygen, due to MACT MM applicability, and the same 40 CFR 60 NSPS Subpart BB PM limit for No. 2 Recovery Furnace, due to NSPS BB applicability.

Streamlining 8: All **Smelt Dissolving Tanks**, **PM** limits: For the Smelt Dissolving Tanks on the No. 1 recovery furnace, the 9 VAC 5-40-1660 regulation PM limit of 0.75 lb/ADTP is streamlined out by the more restrictive 40 CFR 63 MACT Subpart MM PM limit of 0.20 lb/ton BLS, due to MACT MM applicability. For the Smelt Dissolving Tank on the No. 2 recovery furnace, the 9 VAC 5-40-1660 regulation PM limit of 0.75 lb/ADTP and the tighter 40 CFR 63 MACT Subpart MM PM limit of 0.20 lb/ton BLS are streamlined out by the NSR permit PM limit of 0.15 lb/ton BLS, due to BACT.

Streamlining 9: All pulping process **Slaker**s (Nos. 16, 20, and 24 slakers), **PM** limits: For all pulping process slakers, the 9 VAC 5-40-1660 regulation PM limit of 0.30 lb/ADTP is streamlined out by the much more restrictive NSR and Title V permit requirements. These requirements are: No. 16 slaker total enclosure (no emissions); No. 24 slaker vented total enclosure (minimal emissions); No. 20 slaker scrubber with pounds per hour PM limit much tighter than the streamlined limit.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting quarterly and/or semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification within four daytime business hours of malfunctions and deviations from permit requirements of excess emissions for more than one hour.

STATE-ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

Toxic Pollutants	9 VAC 5-60-320

The permittee elected to exclude such requirements from this permit. A portion of the record keeping provisions of this section are still required under this permit as a subset of the HAPs record keeping requirements under 9 VAC 5-80-110. The NSR permit Conditions for state-only toxics are contained in a section designated state-only-enforceable in the NSR permits and are not included in this federal operating permit. The underlying NSR permits are attached as appendices B and D of this statement of basis.

INSIGNIFICANT EMISSION UNITS

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
WYD001	Chip Storage	9 VAC 5-80-720B	PM10	NA
WYD002	Sawdust Storage	9 VAC 5-80-720B	PM10	NA
WYD007	Bark Storage	9 VAC 5-80-720B	PM10	NA
WYD008	Woodchip Conveyors	9 VAC 5-80-720B	PM10	NA
WYD009	Bark Conveyors	9 VAC 5-80-720B	PM10	NA
WYD010	Chip Silos	9 VAC 5-80-720B	PM10	NA
WYD011	Purchased Chip Handling	9 VAC 5-80-720B	PM10	NA
UPM001	Digester Chip Conveyors	9 VAC 5-80-720B	PM10	NA
UPM041	Rejects and Reclaim System	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
UPM043	Pulp Mill Additives	9 VAC 5-80-720B	HAPS	NA
UPM044	Unbleached Pulp Mill Hydrapulper	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
BPM007	Bleach Room White Water System	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
BPM008	Chlorine Handling System	9 VAC 5-80-720B	Chlorine	NA
BPM009	Peroxide Storage	9 VAC 5-80-720B	HAPS	NA
BPM010	Caustic System	9 VAC 5-80-720B	HAPS	NA
CLO004	Sulfuric Acid Storage	9 VAC 5-80-720B	HAPS	NA
CLO005	Chlorine Dioxide Storage	9 VAC 5-80-720B	HAPS	NA
CLO006	Chlorate Storage	9 VAC 5-80-720B	HAPS	NA
FPP001	Fiber Plant	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
FPP002	Fiber Conveyors	9 VAC 5-80-720B	PM10	NA
FPP003	Fiber Plant Additives	9 VAC 5-80-720B	HAPS	NA
NCR001	Southside Coating Room	9 VAC 5-80-720B	HAPS	NA
OCR001	Northside Coating Room	9 VAC 5-80-720B	HAPS	NA
PM1004	No. 1 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM1005	No. 1 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM1006	No. 1 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA
PM2004	No. 2 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM2005	No. 2 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM2006	No. 2 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA
PM5004	No. 5 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM5005	No. 5 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM5006	No. 5 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA
PM6004	No. 6 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM6005	No. 6 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM6006	No. 6 Paper Machine Water System	9 VAC 5-80-720B	HAPS	NA

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PM8004	No. 8 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM8005	No. 8 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM8006	No. 8 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA
PPP001	Purchased Pulp Pulper	9 VAC 5-80-720B	VOC/HAPs	NA
PPP003	Purchased Pulp White Water System	9 VAC 5-80-720B	VOC/HAPs	NA
PWR008	Power House Fuel Oil Storage	9 VAC 5-80-720B	VOC	NA
PWR009	Flyash Handling System	9 VAC 5-80-720B	PM10	NA
PWR010	Power House Coal Handling System	9 VAC 5-80-720B	PM10	NA
PWR011	Woodwaste Handling	9 VAC 5-80-720B	PM10	NA
PWR012	Power House Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
REC031	Green Liquor Storage	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
REC033	No. 12 Slaker	9 VAC 5-80-720B	PM10/VOC/HAPs/TRS/ H2S	NA
REC038	White Liquor Storage	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
REC042	Cone Tank	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
REC053	Lime Mud And Dregs Handling (Dry)	9 VAC 5-80-720B	PM10	NA
REC070	Recovery Fuel Oil Storage	9 VAC 5-80-720B	VOC	NA
REC071	Recovery Additives	9 VAC 5-80-720B	HAPS	NA
STK001	Starch Silos	9 VAC 5-80-720B	PM10	NA
STK002	Starch Kitchen	9 VAC 5-80-720B	HAPS	NA
WTP005	Final Clarifiers	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
WTP006	Sludge Thickener	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
WTP008	Slaked Lime Tank	9 VAC 5-80-720B	PM10/VOC/HAPs/TRS/ H2S	NA
WTP009	Waste Treatment Plant Additives	9 VAC 5-80-720B	HAPS	NA
WTP010	Sewer Sumps	9 VAC 5-80-720B	VOC/HAPs/H2S/TRS	NA
WVC001	Research Activities	NA	NA	NA
WVC001	Parts Washers	9 VAC 5-80-720B	VOC	NA
WVC001	Paper Loading/Packaging	9 VAC 5-80-720B	PM10	NA
WVC006	Oil/Diesel Storage	9 VAC 5-80-720B	VOC	NA
EMG001	Temporary Generators for emergency power	9 VAC 5-80-720B	PM10, NOx, SO2, CO	NA
EMG002	Temporary Compressors for emergency compressed air	9 VAC 5-80-720B	PM10, NOx, SO2, CO	NA
EMG003	Portable pumps	9 VAC 5-80-720B	PM10, NOx, SO2, CO	NA

These insignificant emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit, plus concurrent proposed permit for EPA review, was published in the December 1, 2003 edition of the *Virginian Review*. Public comments were accepted for 30 days following publication of the notice, from December 1, 2003 through December 31, 2003. USEPA and Meadwestvaco submitted written comments during the 30 day public comment period for the draft permit. No additional EPA comments were received during this concurrent EPA 45 day review period ending January 15, 2004.

All comments were addressed in a revised (non-concurrent) proposed permit and SOB for EPA review, along with a Response to Comments addressing every public comment. None of the changes relaxed monitoring, recordkeeping, or reporting, or in any other way triggered a Title V permit requirement to repeat the draft permit public comment period. Only the proposed permit EPA review of up to 45 days needed to be repeated. EPA did not comment on the revised proposed permit. The revision included adding the NOx Budget Trading Program to the proposed permit as requested in a comment by the applicant.

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APPENDIX A: NSR/FOP CORRESPONDENCE TABLE – November 3, 2003, Permit

The following table is a modification of the table in the section Emission Unit Applicable Requirements – New Source Review Permit Requirements. This table is ordered corresponding to the NSR permit conditions as an aid to reference the corresponding federal operating permit conditions. The NSR permit follows in Appendix B.

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
3	IX-A-1	PSD netting compliance	9 VAC 5-80-1700, 9 VAC 5-170-160
4	IX-A-2	Revision of BACT deadline	9 VAC 5-50-260, 9 VAC 5-170-160
5	IV-A-6	Equipment shutdown – Slaker#8	9 VAC 5-80-1100, 9 VAC 5-80-1700
6	IV-A-35	Equipment replacement/shutdown	9 VAC 5-80-1100, 9 VAC 5-80-1700
7	IV-A-7	Equipment shutdown – Lime Calciner	9 VAC 5-80-1100, 9 VAC 5-80-1700
8	VI-A-2	Elemental chlorine free bleaching	9 VAC 5-50-260, 9 VAC 5-60-100
9	V-A-34	ESP as BACT – LK#1 (as modified)	9 VAC 5-50-260, 9 VAC 5-80-1700
10	V-A-41	ESP as BACT – LK#2	9 VAC 5-50-260
11	IV-A-3, IV-A-4, IV-A-8, IV-B-1	Non-condensable gas system controls and monitoring	9 VAC 5-50-260, 9 VAC 5-50-410
12	IV-A-4, IV-A-9,	Foul condensate system controls	9 VAC 5-50-260, 9 VAC 5-50-410
13	V-A-6	CO emission controls – RF#1	9 VAC 5-80-1700
14	III-A-3	Low NOx burners for netting – Boiler#6	9 VAC 5-80-1700
15	III-A-4	FGR for netting – Boilers#7&8	9 VAC 5-80-1700
16	III-A-5	Low NOx burners for netting – Boiler#9	9 VAC 5-80-1700
17	VIII-A-1	Road paving for PM netting	9 VAC 5-50-260, 9 VAC 5-80-1700
18	VIII-A-3	Road paving for PM netting	9 VAC 5-50-260, 9 VAC 5-80-1700
19	IV-A-27, IV-B-2	Fabric filter as BACT – Lime Bins	9 VAC 5-50-260, 9 VAC 5-80-1700
20	IV-A-23	PCDs as BACT – Slaker#24	9 VAC 5-50-260, 9 VAC 5-80-1700
21	III-A-21	PCDs as BACT – Boiler#11	9 VAC 5-50-260, 9 VAC 5-80-1700
22	XII-I	Fugitive dust standards	9 VAC 5-50-90, 9 VAC 5-50-90
23	V-B-1, V-B-2	CEMS for TRS, O_2 – LK#1	9 VAC 5-40-1660, 9 VAC 5-50-410
24	V-B-1, V-B-2	CEMS for TRS, O_2 – LK#2	9 VAC 5-40-1660, 9 VAC 5-50-410
25	III-B-1	CEMS for NOx & O_2/CO – Boiler#11	9 VAC 5-50-40, 9 VAC 5-50-410
26	IX-B-2	CEMS installed before initial performance tests	9 VAC 5-50-40
27	IX-B-3	COMS may replace Method 9 VEE	9 VAC 5-50-40
28	III-D-1, IV-D-1, V-D-1, VI-D-1, VII-D-1, IX-D-1	Facility design to allow for emissions Testing	9 VAC 5-50-30
29	IV-A-14	Production limit - digesters	9 VAC 5-80-1180
30	VI-A-11	Production limit – ClO_2 Plant#2	9 VAC 5-80-1180
31	IV-A-28	Throughput limit – Lime Bins 1, 2 & 3	9 VAC 5-80-1180
32	IV-A-30	Throughput limit – Lime Bins 4 & 5	9 VAC 5-80-1180
33	VII-A-1	Production limit – Paper Machine #2	9 VAC 5-80-1180
34	IV-A-16	Throughput limits – A, C & D Line Oxygen Delignification Systems	9 VAC 5-80-1180
35	IV-A-18, IV-A-19, IV-A-24	Throughput limits – Various recovery section pieces of equipment	9 VAC 5-80-1180
36	VI-A-5, VI-A-7, VI-A-9	Throughput limits – A, C & D Bleach Lines	9 VAC 5-80-1180
37	IV-A-13	Production limit – new digesters (19-26)	9 VAC 5-80-1180
38	IV-A-15	Throughput limit – Waste Heat Evaporator	9 VAC 5-80-1180
39	V-A-11	Throughput limit – RF#1 B L Concentrator	9 VAC 5-80-1180

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
40	V-A-35	Throughput limit – LK#1 (modified)	9 VAC 5-80-1180
41	V-A-42	Throughput limit – LK#2	9 VAC 5-80-1180
42	III-A-22	Approved fuels – Boiler#11	9 VAC 5-80-1100
43	III-A-23	Fuel consumption limit – Boiler#11	9 VAC 5-80-1100
44	III-A-24	Fuel consumption limit – Boiler#11	9 VAC 5-80-1100
45	III-A-25	Fuel consumption limit – Boiler#11	9 VAC 5-80-1100
46	III-A-26	Fuel specification – Boiler#11	9 VAC 5-80-1100, 9 VAC 5-50-410
47	V-A-29	Approved fuels – LK#1 & LK#2	9 VAC 5-80-1100
48	V-A-30	Fuel specification – LK#1 & LK#2	9 VAC 5-50-260, 9 VAC 5-80-1100
49	IV-A-33	Approved fuels – Waste Gas Incinerators	9 VAC 5-80-1100
50	III-A-27, V-A-31	Fuel certification (No 2 oil) – Boiler#11, LK#1 & LK#2	9 VAC 5-170-160
51	III-A-27, V-A-31	Fuel certification (No 6 oil)–LK#1&LK#2	9 VAC 5-170-160
52	VII-A-2	Emission limits as BACT – #2 P- Machine	9 VAC 5-50-260, 9 VAC 5-80-1700
53	IV-A-3, IV-A-17	Emission limits as BACT – A, C & D Line Oxygen Delignification Systems	9 VAC 5-50-260, 9 VAC 5-80-1700
54	IV-A-4, IV-A-10	Emission limits as BACT – Mill condensate systems	9 VAC 5-50-260, 9 VAC 5-80-1700, 9 VAC 5-80-1100
55	IV-A-11	Emission limits as BACT – various recovery section equipment	9 VAC 5-50-260, 9 VAC 5-80-1700
56	III-A-10	Emission limits for netting – Boilers#6-9	9 VAC 5-80-1700
57	V-A-37	Emission limits as BACT–LK#1(modified)	9 VAC 5-50-260, 9 VAC 5-80-1700
58	V-A-43	Emission limits as BACT – LK#2	9 VAC 5-50-260, 9 VAC 5-80-1700
59	IV-A-25	Emission limits as BACT – Slaker#24	9 VAC 5-50-260, 9 VAC 5-80-1700
60	VI-A-6, VI-A-8, VI-A-10	Emission limits as BACT – A, C & D Bleach Lines	9 VAC 5-50-260, 9 VAC 5-80-1700
61	VI-A-4	Bleach line CO limit for netting	9 VAC 5-50-260, 9 VAC 5-80-1700
62	VIII-A-2	Paved road PM limit for netting	9 VAC 5-50-260, 9 VAC 5-80-1700
63	VIII-A-4	Paved road PM limit for netting	9 VAC 5-50-260, 9 VAC 5-80-1700
64	V-A-9	Incorporated consent order condition	9 VAC-5-40-1690
65	V-A-8	RF#1 CO limit for netting	9 VAC 5-50-260, 9 VAC 5-80-1700
66	V-A-21	Emission limits as BACT – RF#2	9 VAC 5-50-260, 9 VAC 5-80-1700
67	IV-A-29	Emission limits as BACT– Lime Bins 1,2,3	9 VAC 5-50-260, 9 VAC 5-80-1700
68	IV-A-31	Emission limits as BACT– Lime Bins 4&5	9 VAC 5-50-260, 9 VAC 5-80-1700
69	III-A-8	Boiler#6 NOx limit for netting	9 VAC 5-80-1700
70	III-A-9	Boiler#9 NOx limit for netting	9 VAC 5-80-1700
71	III-A-28	Emission limits as BACT – Boiler#11	9 VAC 5-50-260, 9 VAC 5-80-1700
72	III-A-29	Emission limits as BACT – Boiler#11	9 VAC 5-50-260, 9 VAC 5-170-160
73	IV-A-36	Emission limits as BACT – WG Incin#1	9 VAC 5-50-260, 9 VAC 5-80-1700
74	IV-A-37	Emission limits as BACT– WG Incin#2&3	9 VAC 5-50-260, 9 VAC 5-80-1700
75	IV-A-32	Visible emissions – Lime Bins	9 VAC 5-50-260, 9 VAC 5-80-1100
76	V-A-38	Visible emissions – LK#1 (modified)	9 VAC 5-50-80 & 9 VAC 5-40-1710
77	V-A-44	Visible emissions – LK#2	9 VAC 5-50-80 & 9 VAC 5-40-1710
78	III-A-30	Visible emissions – Boiler#11	9 VAC 5-50-260, 9 VAC 5-50-410
79	IV-A-38	Visible emissions – WG Incinerators	9 VAC 5-50-260, 9 VAC 5-80-1100
80	VII-A-3	Visible emissions – #2 Paper Machine	9 VAC 5-50-80
81	III-A-31	Requirement by reference – NSPS D_b	9 VAC 5-50-410
82	IV-A-2, V-A-2	Requirement by reference –NSPS BB	9 VAC 5-50-410
83	IV-A-1-	Requirement by reference – MACT S	9 VAC 5-60-100
84	V-A-1	Requirement by reference – MACT MM	9 VAC 5-60-100
85	VII-A-3	Requirement by reference – MACT JJJJ	9 VAC 5-60-100
86	V-D-7	Initial performance test – LK#1 (modified)	9 VAC 5-50-20, 9 VAC 5-80-1200

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
87	IV-D-3	Initial performance test – WG Incin # 1	9 VAC 5-50-30
88	IV-D-2	Initial performance test – WG Incin #2 & 3	9 VAC 5-50-20, 9 VAC 5-80-1200
89	N/A	Initial VEE – COMS required March 2004	
90	IV-D-6	Initial VEE – WG incinerators	9 VAC 5-50-30, 9 VAC 5-170-160
91	IX-D-2	COMS as alternative to VEE	9 VAC 5-50-20
92	IX-D-3	CEMS/COMS performance evaluation	9 VAC 5-50-40
93	VII-D-2	Continuing VOC stack test – various units	9 VAC 5-50-30
94	IV-D-5	Continuing PM stack test – Lime Bins & Slakers	9 VAC 5-50-30
95	III-D-2	Continuing NOx stack test – Boilers 6&9	9 VAC 5-50-30
96	V-D-8	Continuing stack tests – LK#1 & LK#2	9 VAC 5-50-30
97	III-D-4	Continuing stack tests – Boiler #11	9 VAC 5-50-30
98	IV-D-4	Continuing stack tests –WG Incinerators	9 VAC 5-50-30
99	V-D-2	Continuing CO stack test – RF#1	9 VAC 5-50-30
100	V-D-4	Continuing stack tests – RF#2	9 VAC 5-50-30
101	IV-D-6	Continuing VEEs – various units	9 VAC 5-50-30
102	III-D-5, V-D-9, IX-B-4,	CEMS/COMS Quality Control Program	9 VAC 5-50-40
103	IX-E-2	Notifications – construction milestones	9 VAC 5-170-160
104	IX-E-3	Notification of control equipment maintenance	9 VAC 5-20-180
105a	III-C-3	Records of fuel use – Boiler #11	9 VAC 5-50-50
105b	III-C-4	Records of oil sulfur content	9 VAC 5-50-50
105c	III-C-5, V-C-7	Fuel supplier certifications	9 VAC 5-50-50
105d	IV-C-1,2&3	Throughput records of ADTP	9 VAC 5-50-50
105e	IV-C-4	Throughput records of ODTP	9 VAC 5-50-50
105f	IV-C-5,6&7, V-C-8&9	Throughput of lime and lime slurry for various equipment	9 VAC 5-50-50
105g	IX-C-3	Federally required records	9 VAC 5-50-50
105h	IV-C-8	Records of throughput and VOC content of condensates and wastewater	9 VAC 5-50-50
105i	VI-C-7	Chlorine dioxide production	9 VAC 5-50-50
105j	III-C-6, V-C-22, IX-C-2,	Continuous monitoring system records	9 VAC 5-50-50
105k	III-C-15, IV-C-23, V-C-23, IX-C-4,	Maintenance records	9 VAC 5-50-50
106	IX-E-4	CMS/COMS reports	9 VAC 5-50-50
107	IX-E-5	Other reports	9 VAC 5-170-160
108	IX-A-6	Steady and timely construction schedule	9 VAC 5-20-1210
109	XII-R	Right of entry	9 VAC 5-170-130
110	XII-F	Malfunction notification	9 VAC 5-20-180
111	IX-A-4	Violation of Ambient Air Standard	9 VAC 5-20-180
112	IX-A-5	Maintenance & operation practice	9 VAC 5-50-20
113	XII-V	Permit suspension/revocation	9 VAC 5-80-10
114	XII-U	Change of ownership	9 VAC 5-80-10
115	XII-O	Registration/update	9 VAC 5-170-60, 9 VAC 5-20-160
116	XII-T	Permit Copy	9 VAC 5-170-160
117	N/A	State toxics – control equipment required	
118	N/A	State toxics – emission limits	
119	N/A	State toxics – stack testing	

APPENDIX B: NSR PERMIT DATED NOVEMBER 3, 2003

The permit, with its own page numbering, follows.

APPENDIX C: NSR/FOP CORRESPONDENCE TABLE – October 12, 1988, Permit

The following table is a modification of the table in the section Emission Unit Applicable Requirements – New Source Review Permit Requirements. This table is ordered corresponding to the NSR permit conditions as an aid to reference the corresponding federal operating permit conditions. The NSR permit, as amended October 31, 2003, follows in Appendix D.

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
I-4	IV-A-12	Digester throughput limit	9 VAC 5-80-1180
I-5	V-A-19, V-A-20	Fuel throughput limit – RF#2	9 VAC 5-80-1100
I-6	V-A-7	Fuel throughput limit – RF#1	9 VAC 5-80-1100
I-7	III-A-15	Fuel throughput limit – Boiler #10	9 VAC 5-80-1100
I-8	V-A-21, V-A-23	Emission limits as BACT – RF#2	9 VAC 5-50-260, 9 VAC-50-410
I-9	V-A-26, V-A-27	Emission limits as BACT – RF2SDT	9 VAC 5-50-260, 9 VAC-50-410
I-10	N/A - (IV-A-3)	(Now part of LVHC system)	(9 VAC 5-50-260)
I-11	III-A-17, (III-A-10)	Emission limits as BACT – Boiler#10	9 VAC 5-50-260
I-12	V-A-8	Emission limits as BACT – RF#1	9 VAC 5-80-1700
I-13	V-A-13	Emission limits as BACT – RF1SDT	9 VAC 5-80-1700
I-14	V-A-36	Emission limits as BACT – LK#1	9 VAC 5-40-1660, 9 VAC-80-1700
I-15	IV-A-22	Emission limits as BACT – Slaker#20	9 VAC 5-80-1700
I-16	N/A	Deleted – regulatory change	
I-17	N/A	Deleted – regulatory change	
I-18	V-A-24	Visible emissions – RF#2	9 VAC 5-40-1660, 9 VAC 5-50-410
I-19	V-A-28	Visible emissions – RF#2SDT	9 VAC 5-40-1660, 9 VAC 5-50-80
I-20	V-A-17, VA-18	Control devices as BACT – RF#2	9 VAC 5-50-260
I-21	V-A-25	Control devices as BACT – RF#2SDT	9 VAC 5-50-260
I-22	N/A (IV-A-3&8)	(Now part of LVHC system)	9 VAC 5-60-100, (9 VAC 5-50-260)
I-23	N/A (IV-A-3&8)	(Now part of LVHC system)	9 VAC 5-60-100, (9 VAC 5-50-260)
I-24	N/A (IV-A-3&8)	(Now part of LVHC system)	9 VAC 5-60-100, (9 VAC 5-50-260)
I-25	N/A	Deleted – equipment not installed	
I-26	IV-A-3, IV-A-4	Foul condensate collection requirements	9 VAC 5-60-100, (9 VAC 5-50-260)
I-27	IIIV-A-6	SO_2 scrubbers for PSD – Boilers#6-9	9 VAC 5-80-1700
I-28	N/A (IV-A-3&8)	(Now part of LVHC system)	9 VAC 5-60-100, (9 VAC 5-50-260)
I-29	N/A	Now Condition III-1	9 VAC 5-60-100
I-30	V-A-4	Fuel sulfur content – RF#2	9 VAC 5-50-260, 9 VAC 5-80-1700
I-31	V-A-4	Fuel sulfur content – RF#1	9 VAC 5-50-260, 9 VAC 5-80-1700
I-32	III-A-16	Fuel sulfur content – Boiler#10	9 VAC 5-80-1100, 9 VAC 5-80-1700
I-33	V-A-22	Additional SO2 limit – RF#2	9 VAC 5-30-30
I-34	N/A	Initial performance test - completed	
I-35	N/A	Initial performance test - completed	
I-36	N/A	Deleted – equipment not installed	
I-37	N/A	Initial performance test - completed	
I-38	N/A	Initial performance test - completed	
I-39	V-B-1, V-B-2, V-B-3	Continuous emission & opacity monitors - RF#2	9 VAC 5-40-1660, 9 VAC 5-50-410
I-40	V-B-9	PSD monitoring – RF#2SDT	9 VAC 5-50-410
I-41	IX-B-1	Facility SO_2 monitor	9 VAC 5-80-1700, 9 VAC 5-170-160
I-42	N/A	Short term monitoring - completed	
I-43	V-A-4	CEMS-SO_2 – Boilers#6-9	9 VAC 5-80-1700
I-44	IV-A-20	PCD for BACT – Slaker#16	9 VAC 5-80-1700
I-45	V-A-40	Minimum stack height limit	9 VAC 5-30-30, 9 VAC 5-80-1100

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
II-1	N/A	Construction progress reports - completed	
II-2	N/A	Milestone notifications - completed	
II-3	N/A	Performance test deadlines - completed	
II-4	III-D-1, IV-D-1, V-D-1, VI-D-1, IX-D-1	Facility design to allow for emissions Testing	9 VAC 5-50-30
II-5	NA	CEMS/COMS installation deadline - completed	
II-6	III-C, IV-C, V-C, VI-C, IX-C	Keep appropriate records	9 VAC 5-50-50, 9 VAC 5-80-110
II-7	NA	Emissions by total plant of all HAPs with emission limits under state toxics*	9 VAC 5-50-50, 9 VAC 5-80-110
II-8	IX-A-5	Available operation/maintenance plans	9 VAC 5-50-20
II-9	XII-S	Right to re-open/modify/rescind	9 VAC 5-80-110
II-10	N/A	Local zoning – now in application info	
II-11	XII-F	Malfunction reporting	9 VAC 5-20-180, 9 VAC 5-50-50
II-12	N/A	NSR construction stipulation	
II-13	N/A	Reference to regulations now revised	
II-14	N/A	Deadline for construction - completed	
II-15	XII-U	Change of ownership	9 VAC 5-80-160
II-16	XII-J	Severability clause	9 VAC 5-80-110
II-17	NA	Legal boilerplate now in cover letters	
III-1	N/A	State toxics limits – ClO_2 Plant#2	

APPENDIX D: NSR PERMIT DATED OCTOBER 12, 1988

The permit, as amended October 31, 2003, with its own page numbering, follows.